

ABSTRACT OF THE DISCLOSURE

A process and apparatus for the assembly of cores for casting six cylinder in-line engines reduces lifting and eliminates walking with barrel cores weighing 55-64 lbs., eliminates the effort of reaching out with outstretched arms while holding 55-64 lb. cores, and reduces core assembly personnel by up to three people. A core assembly apparatus can comprise a rotating table that is rotatable to a plurality of operation positions. A plurality of core assembly fixtures are carried by the rotating table adjacent its periphery, and preferably there is one core assembly fixture for each operation position. Each of the plurality of core assembly fixtures is inclined, with respect to horizontal, toward the central portion of the rotating table, and one of the operation positions comprises means for automatically transferring a completed core assembly from a core assembly fixture to a powered horizontal conveyor. The means for automatically transferring a completed core assembly from a core assembly fixture to a horizontal conveyor can comprise a pick-and-place assembly for engaging a core assembly and moving it horizontally, vertically and angularly for removal from an inclined core assembly fixture of a rotating table and placement on a horizontal conveyor, or the core assembly fixtures may be pivotally attached to the rotating table and include core assembly gripping mechanisms and be driven to pivot the core assembly fixtures and lower assembled cores onto a horizontal conveyor.